# City of Ladue Development Application

# Property Owner

Name of owner Old Warson Cour	ntry Club					
Name of contact person (if corporation	Aidon Murahy					
Address 9841 Old Warson, Ladue, MO 63124						
	840 Emailamurphy@oldwarson.com					
Signature <u>Aídan Murphy</u>						
Petitioner (if different from owne	rl					
Name Fendler + Associates, Inc.						
Name of contact person (if corporation) Paul Fendler						
5201 Pattison Avenue, St. Louis, MO 63110 Address						
Phone Number314-664-7725	Email pf@fendlerworld.com					
Action Requested						
☐ Subdivision/Site Development Re	eview (Fee: \$500 + \$100 for each potential lot in excess of three)					
☐ Small Subdivision or Lot Line Adju	ustment (Fee: \$300)					
☐ Rezoning (Fee: \$1000) ☐ Subdivision with Rezoning (Subd	ivisian Egg + \$1000)					
□ PUD (Fee: \$2000)	ivision ree : \$1000)					
XX Special Use Permit (Fee: \$250 no	ot-for-profit, \$500 for-profit)					
Property address9841 Old Warso	n					
Size of lot144.34 Acres	Zoning district B					
Describe the project brieflyRemo	ove a tennis court and replace with pickleball courts and					
construct a 1,420 square foot pavilion with bathroom						
facilities and an open, covered seating area.						

Old Warson Country Club 9841 Old Warson Ladue, Moo 63124

**RE: Special Use Permit** 

A special use permit is being requested for the construction of pickleball courts and a pavilion at Old Warson Country Club

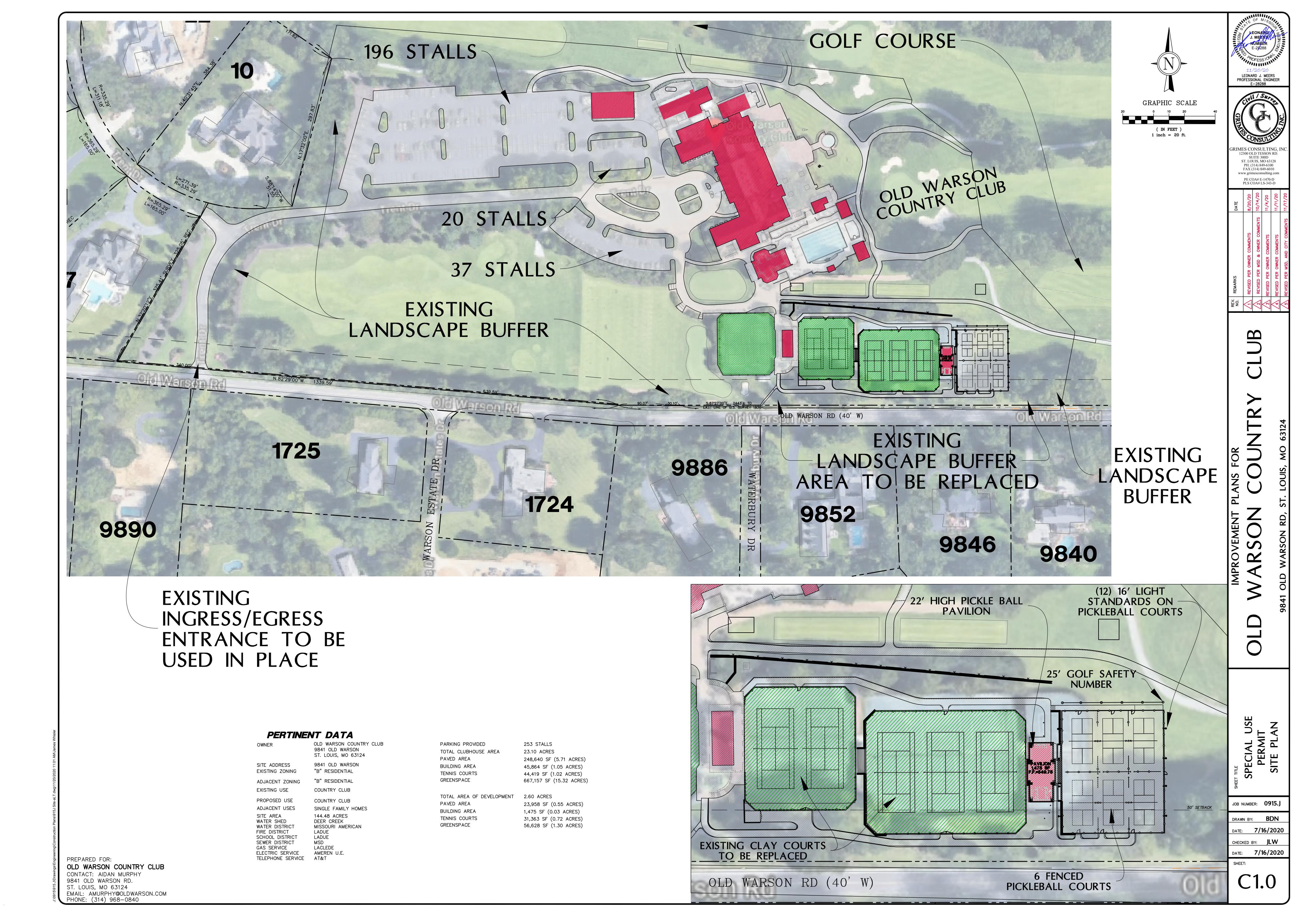
Pickleball courts and pavilion will be for Old Warson Country Club members-only.

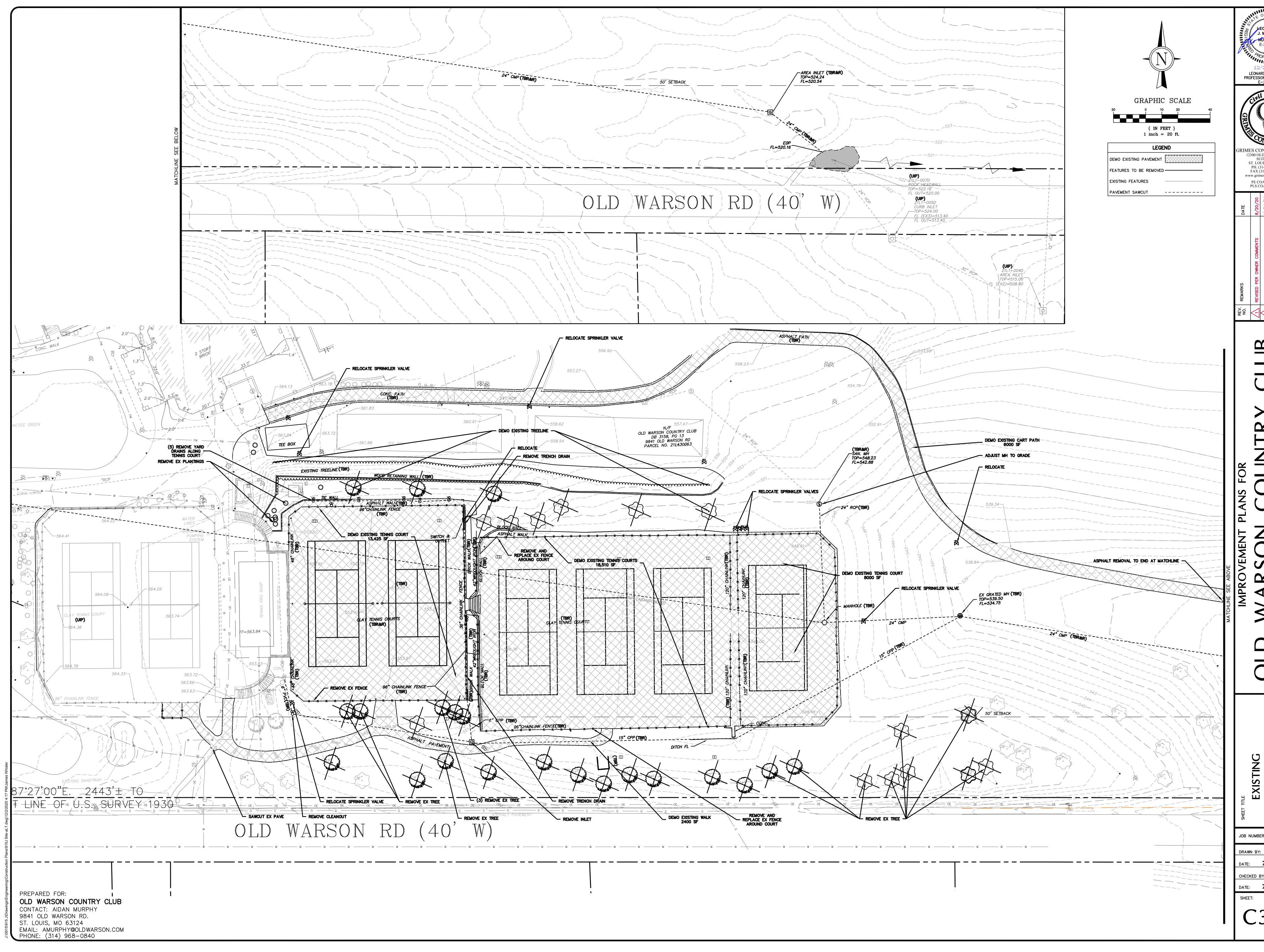
On occasion there may be small, hosted events where alcohol is served in the Pavilion, but it would have to be scheduled via the Club first. Otherwise, the Pavilion will have water and soft drinks only, available for tennis and pickleball players.

The pavilion is an open-air covered structure that also includes bathroom facilities and a storage room. The pavilion will accommodate seating that includes lounge chairs, and table and chair seating for approximately 20-25 members.

The proposed hours of operation for the courts and pavilion are daylight (Tuesday through Sunday), except for pickleball which would be open to 9:30 p.m.



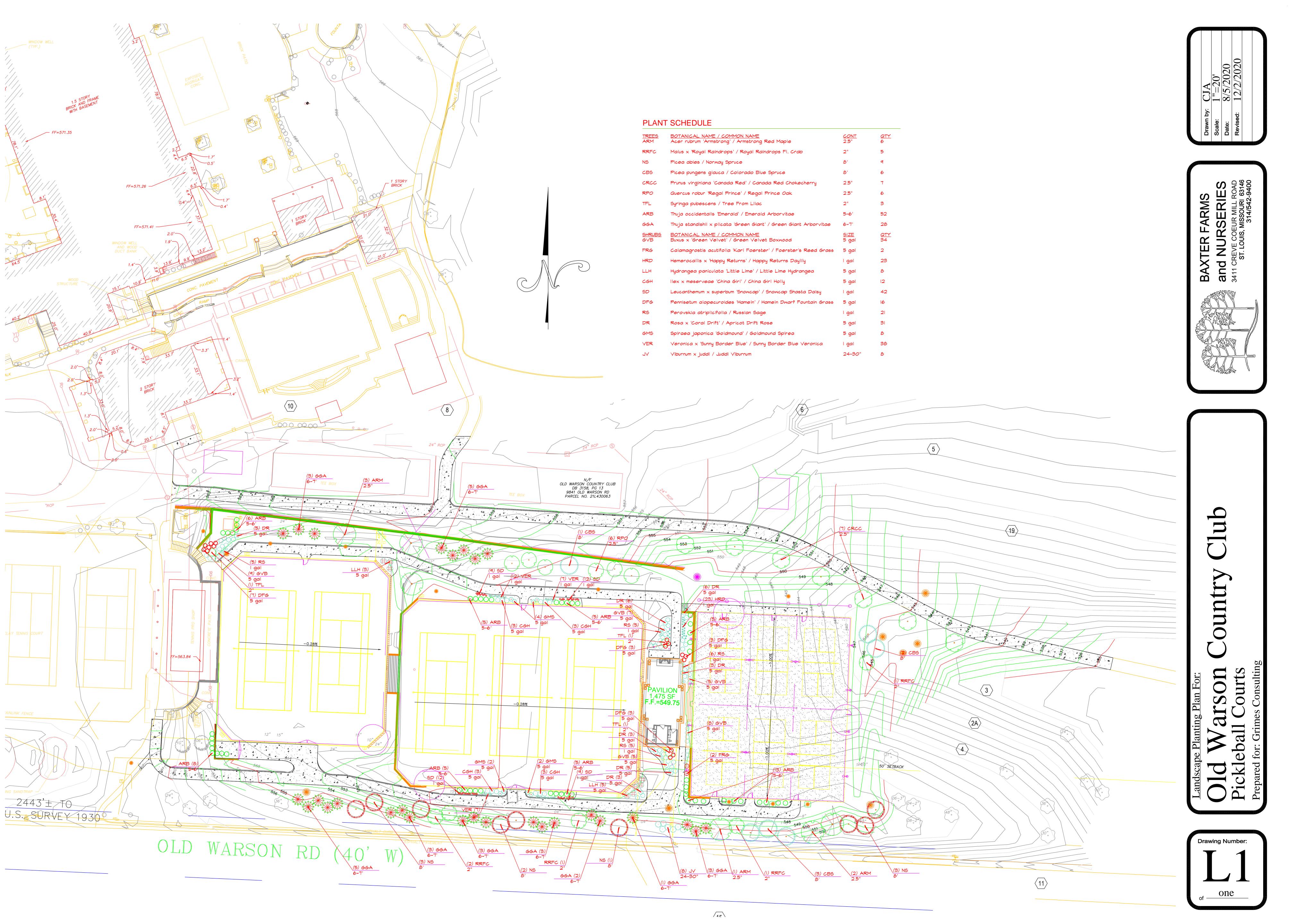


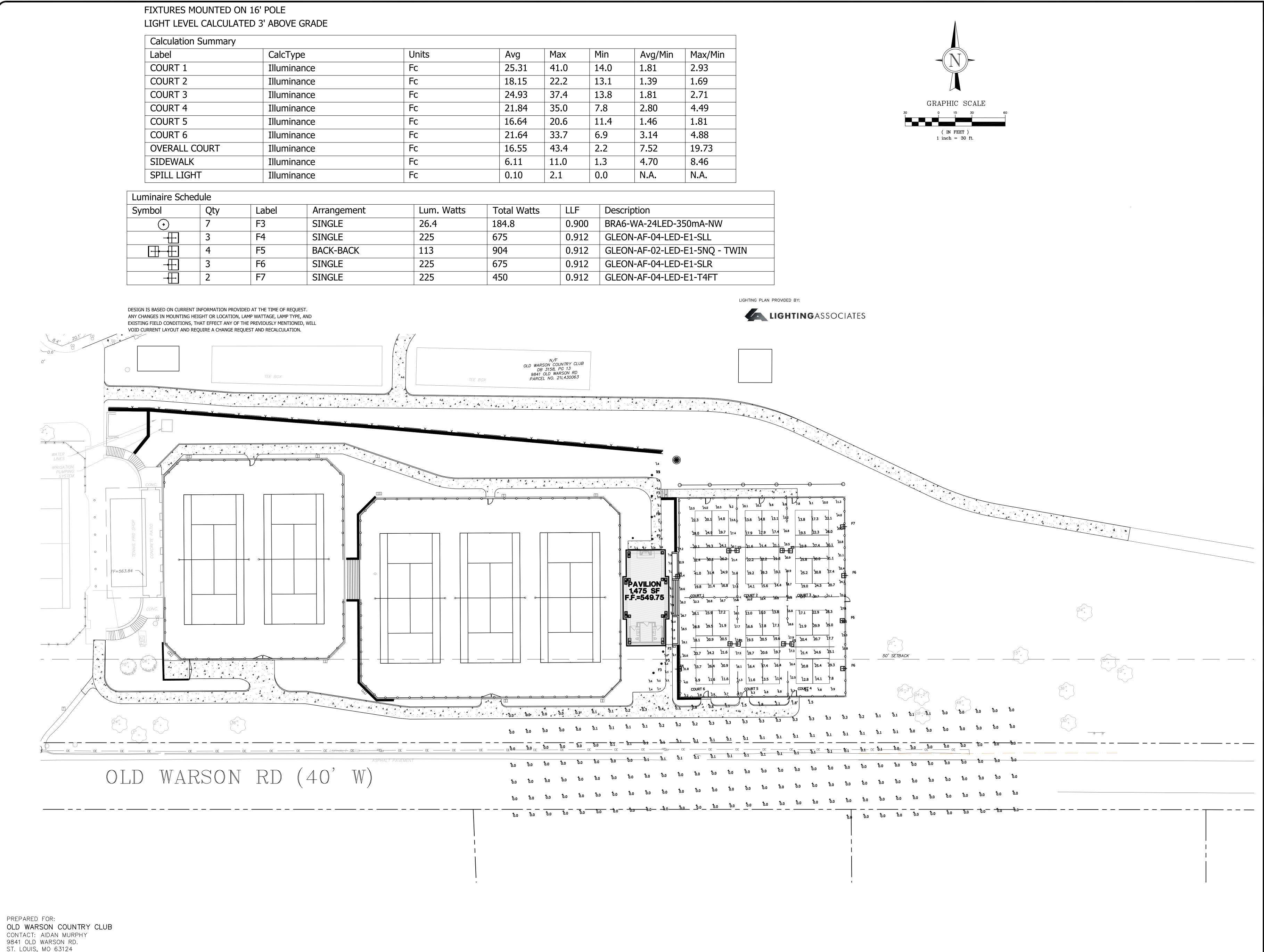


GRIMES CONSULTING, INC 12300 OLD TESSON RD. SUITE 300D ST. LOUIS, MO 63128 PH. (314) 849-6100 FAX (314) 849-6010 PE COA# E-1470-D PLS COA# LS-343-D

JOB NUMBER: **0915.J** DRAWN BY: BDN DATE: **7/16/2020** 

CHECKED BY: **JLW** DATE: 7/16/2020





EMAIL: AMURPHY@OLDWARSON.COM

PHONE: (314) 968-0840

LEONARD J. MEERS J. MUMBER E-28/288

12/2/20
LEONARD J. MEERS
PROFESSIONAL ENGINEER
E-28288

GRIMES CONSULTING, INC 12300 OLD TESSON RD. SUITE 300D ST. LOUIS, MO 63128 PH. (314) 849-6100 FAX (314) 849-6010 www.grimesconsulting.com PE COA# E-1470-D PLS COA# LS-343-D

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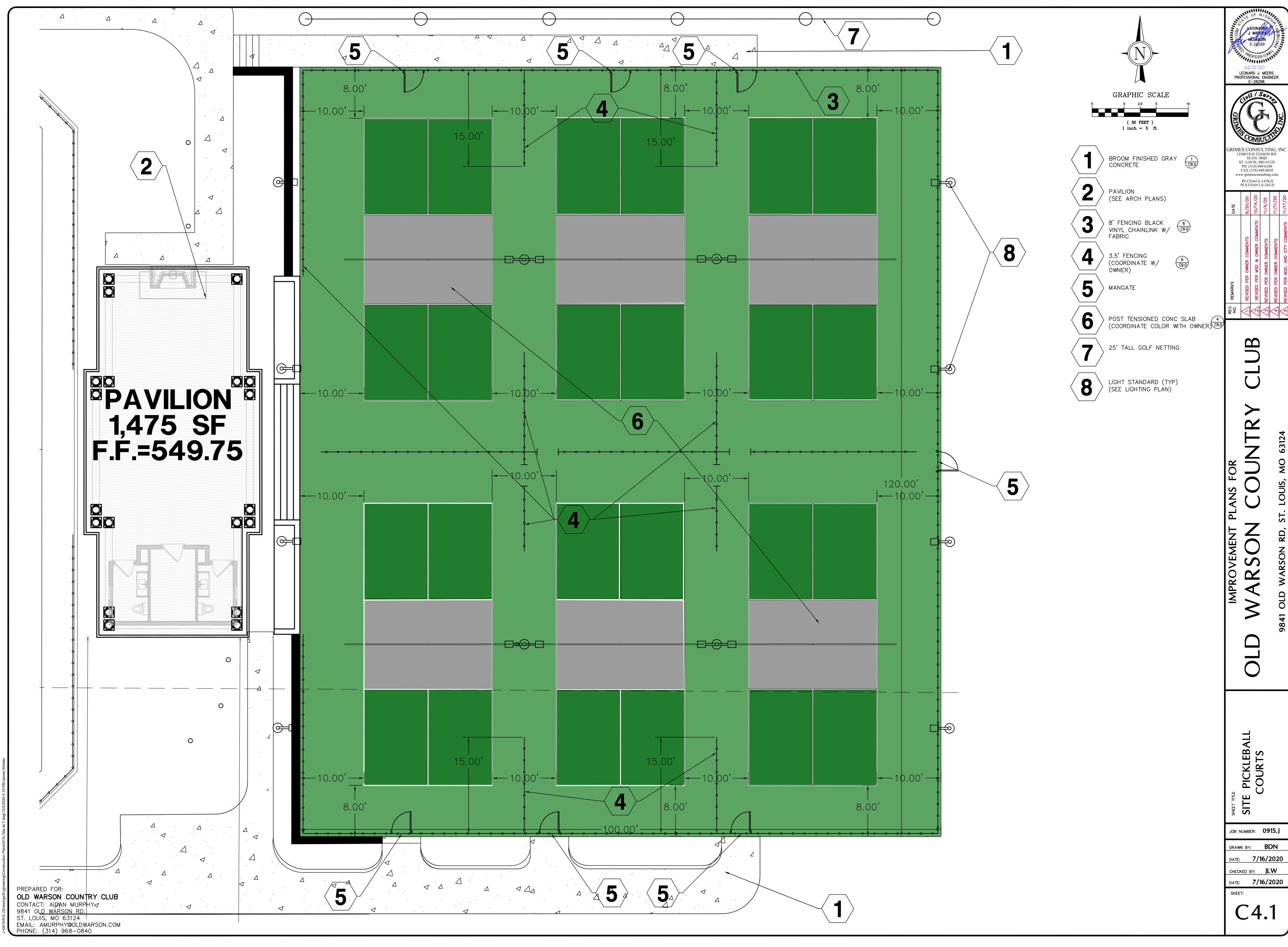
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DRAWN BY: **BDN**DATE: **7/16/2020** 

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 JLW

 DATE:
 7/16/2020

SHEET:





E PICKLEBALL COURTS

JOB NUMBER: **0915.J** DRAWN BY: BDN DATE: 7/16/2020

CHECKED BY: **JLW** DATE: **7/16/2020** 

## SOLID STATE BOLLARDS

# BRA SERIES-LED

#### PECIFICATION

#### **BOLLARD**

Durable corrosion resistant extruded and cast aluminum construction. 4" wall thickness.

#### LED POWER ARRAY™

Three-dimensional array consisting of 6 individual LED tubes for the BDA8 model and 4 individual LED tubes for the BDA6 model, which are fastened to a retaining plate equally spaced to provide 360° of even illumination output. Each LED tube consists of a circuit board populated with a multiple of LED's which is fastened to a radial aluminum heat sink. A white polycarbonate lens and end caps protect each LED tube's internal components and provides diffusion to prevent shadowing and striations.

INTERNAL LOUVER (IL) - A specular louver stack conceals the inner LED Power Array Module and provides uplight and glare control through the external clear polycarbonate lens.

CAST LOUVER (CL) - External cast aluminum louver stack protects the internal LED Power Array Module and provides uplight and glare control. An internal clear polycarbonate lens is integrated with the LED Power Array Module.

OPAL LENS (WP) - Exterior white polycarbonate lens protects the internal LED Power Array Module and provides a uniform white glow.

#### RADIAL LED MODULE

LED'S are mounted to a circular heatsink in a radial array. The radial LED module is concealed in the cap of the bollard. LED's are not directly visible from angles above 90°.

PARABOLIC REFLECTOR (PR) - A specular Parabolic Reflector reflects a portion of the distribution from the radial LED module and provides a uniform wide angle throw through the outer clear polycarbonate lens.

#### LED EMITTERS

High Output LED's are driven at 350mA for nominal 1 Watt output each. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

#### LED DRIVER

UL and CUL recognized Constant Current LED drivers operate on input voltages from 120-277VAC, 50/60hz. Consult Factory for (347-480VAC). Driver is mechanically fastened to a retaining bracket. Driver has a minimum 4KV of internal surge protection, 10KV & 20KV Surge Protector optional. Dimmable and High-Low Driver options available.

Polyester powder coat incorporates four step iron phosphate process to pretreat metal surface for maximum adhesion. Top coat is baked at 400°F for maximum hardness and exterior durability.



FIXTURE TYPE:



 $\mathsf{B}\,\mathsf{R}\,\mathsf{A}$ 

BRA8 SHOWN WITH -PR OPTICS

PATENT PENDING





BOLLARD	A	В	С	D
BRA8	<b>42"</b>	<b>8"</b>	<b>6"</b>	<b>8"</b>
	1067mm	203mm	152mm	203mm
BRA6	<b>42"</b>	<b>6"</b>	<b>4"</b>	<b>6"</b>
	1067mm	152mm	102mm	152mm





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LIGHTING





#### **Occupancy Sensor**

The optional motion sensor reduces energy use for site lighting applications.

### **Mounting Options**



#### Mast Arm Adapter

An optional cast aluminum mast arm adapter secures fixture head to nominal 2" (2-3/8" O.D. pipe size) horizontal steel tenon arm.



#### **Wall Mount Bracket**

An optional wall-mount plate is secured to wall by four lag bolts (supplied by others).

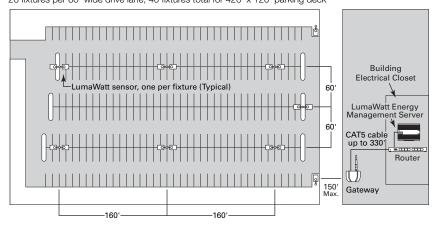
# **Scheduled Dimming and Occupancy Detection**



For outdoor parking area applications, lighting should be dimmed or turned off within one hour of business closing. Scheduled dimming and occupancy detection can be combined to reduce maximum lighting levels outside business hours. Egress and security lighting is available on occupancy detection.

#### Sides of Drive Fixture Location

Fixture Spacing = 160' x 120' on center 20 fixtures per 60' wide drive lane; 40 fixtures total for 420' x 120' parking deck



#### **Energy Savings Calculations**

Configuration	Daily Hours of Operation	Control Event	Annual Load (KWh)			
14 Sensor Integrated Luminaires 35' on Mounting Height, Centered at 120' x 160'						
Bill-of-Material (BOM)						
(1) RF-EM1, (1) RF-ROUT1, (1) RF-GW1 (14) GLEON-AE10-LED-E1-T2-BZ-DIMRF-LN (515W)	11	100% On	28,948			
Control Schedule						
7:30 PM-11:30 AM	4	100% On	10,526			
11:30 PM-6:30 AM	7	40% On, On Occupancy 70%	7,268			
Total Controlled Load	11	2 Events	17,895			
Energy Saving			38%			

## IESNA Lighting Handbook 10th Edition Illuminance Values for Area and Site Applications

#### Parking Lot Design Guide

Minimum Horizontal Illuminance <sup>1</sup>	Uniformity Ratio Max. / Min.	Minimum Vertical Illuminance <sup>2</sup>		
lux/fc				
2.0 / 0.2	20:1	1.0 / 0.1		
5.0 / 0.5	15:1	2.5 / 0.25		
10.0 / 1.0	15:1	5.8-8.0 / 0.5-0.5		
30.0-60.0 / 3.0-6.0	4:1	12-60 / 1.2-6.0		
	Horizontal Illuminance 1  2.0 / 0.2  5.0 / 0.5  10.0 / 1.0  30.0-60.0 /	Horizontal Illuminance 1 Max. / Min. lux/fc  2.0 / 0.2 20:1  5.0 / 0.5 15:1  10.0 / 1.0 15:1  30.0-60.0 / 4:1		

#### NOTES:

- 1 Measured on parking surface without shadowing from any object
- 2 For facial recognition measured at 5' above the parking surface at the point of lowest horizontal illuminance

